JC20 Rec'd PCT/PTO 0 6 MAY 2005, ART 34 AMDT

What is claimed is,

- (amended) A combustor for combusting animal and vegetable oils comprising;
 - a burner tile,
 - a burner nozzle,
- a means for supplying animal and vegetable oils, through the burner nozzle, into the burner tile in the form of atomized fuel,
- a means for introducing a straight-line air current into the burner tile, which straightly flows in the vicinity of the burner nozzle toward the opening of the burner tile, and
- a means for forming the field of centrifugal force surrounding the straight-line air current within the burner tile under the effect of the turning air current,

whereby the fuel droplets of the atomized fuel are separated and take various orbits in line with the masses within the field of the centrifugal force and combusted.

- 2. The combustor according to claim 1, wherein the means for supplying animal and vegetable oils is arranged to deliver the atomized fuel toward the axially central area of the turning air current.
- 3. The combustor according to claim 1 or 2, further comprising a means for adjusting the mass of the fuel droplets to be atomized, whereby the delivered and separated by the central force effect, atomized fuel are prevented from contacting with the inner surface of the burner tile.
- 4. The combustor according to any one of claims 1 to 3, wherein the burner tile is of a cylindrical configuration.
- 5. The combustor according to any one of claims 1 to 4, further

comprising a means for adjusting the position of the ignition flame in the central area of the burner tile.

- 6. (cancelled)
- 7. (amended) The combustor according to any one of claims 1 to 5, further comprising a means for adjusting the pressure and the flow rate of the straight-line air current relative to the turning air current.
- 8. (amended) The combustor according to any one of claims 1 to 5 and 7, further comprising an ignition burner capable of providing sufficient heat energy for allowing continuous propagation of combustion of the animal and vegetable oils.